

IN THE CLAIMS:

Please amend Claims 1, 23 and 45 as shown below. The claims, as pending in the subject application, read as follows:

1. (Currently Amended) An information processing apparatus comprising:
 - status acquisition means for acquiring an operation status of a program executed in said apparatus;
 - status concept instance generating means for generating a status concept instance that represents the operation status of the program acquired by said status acquisition means;
 - a plurality of input means for inputting different types of information;
 - storage means for storing information input from each of said plurality of input means with an input time thereof;
 - sorting means for sorting at least two types of information stored in said storage means in an order ~~in accordance with~~ of the input time;
 - a knowledge base for storing a rule for defining information necessary for generating an input concept instance with respect to a type of input concept;
 - input concept instance generating means for generating ~~an~~ the input concept instance from a sequence of the at least two types of information sorted in the input time order by said sorting means, by referring to the rule stored in said knowledge base; and
 - concept instance unifying means for unifying the status concept instance and the input concept instance.

2. (Cancelled)

3. (Previously Presented) An information processing apparatus according to claim 1, wherein the input concept instance includes a type of a slot and an instance corresponding to the type of the slot.

4. (Previously Presented) An information processing apparatus according to claim 1, further comprising:
a database for storing the input information and information necessary for generating the input concept instance, in one-to-one correspondence; and
retrieving means for retrieving information necessary for generating the input concept instance corresponding to the input information from said database,
wherein said input concept instance generating means generates the input concept instance in accordance with the information retrieved from said database.

5. (Previously Presented) An information processing apparatus according to claim 4, wherein said database stores a concept type, a rule necessary for the input concept instance, and a rule necessary for a surface layer word, respectively, corresponding to a surface layer character string.

6. (Previously Presented) An information processing apparatus according to claim 5, wherein said concept instance unifying means unifies the concept instances in accordance with the rules stored in said database.

7. (Previously Presented) An information processing apparatus according to claim 6, wherein said database stores, as a definition of a concept, a slot type of a slot which the input concept instance can have, and a rule which is required to be satisfied by the instance corresponding to the slot.

8. (Previously Presented) An information processing apparatus according to claim 7, wherein said unifying means unifies the concept instances in accordance with the rule designated by the definition of the concept corresponding to the type of the concept of the input concept instance.

9. (Previously Presented) An information processing apparatus according to claim 6, wherein said concept instance unifying means selects an applicable request in accordance with requirements of a plurality of rules, applies the selected request and unifies the concept instances.

10. (Previously Presented) An information processing apparatus according to claim 1, wherein said status acquisition means acquires the operation status of the program executed said apparatus at an input time.

11. (Previously Presented) An information processing apparatus according to claim 1, further comprising status storage means for storing a past status, wherein said status concept instance generating means generates the status concept instance in accordance with the past status read from said status storage means.

12. (Original) An information processing apparatus according to claim 1, wherein said input means can input key information.

13. (Original) An information processing apparatus according to claim 12, wherein said input means can input character information by converting the key information.

14. (Original) An information processing apparatus according to claim 1, wherein said input means can input speech information.

15. (Original) An information processing apparatus according to claim 14, wherein said input means can input character information by recognizing the speech information and converting the speech information into character information.

16. (Original) An information processing apparatus according to claim 1, wherein said input means can optically input image information.

17. (Original) An information processing apparatus according to claim 16, wherein said input means can input character information of the image information by optically recognizing the image information.

18. (Original) An information processing apparatus according to claim 1, wherein said input means can input hand-written information.

19. (Original) An information processing apparatus according to claim 18, wherein said input means can input the hand-written character information by recognizing the hand-written character information on line.

20. to 22. (Canceled)

23. (Currently Amended) An information processing method performed in an apparatus, said method comprising:

a status acquisition step, of acquiring an operation status of a program executed in said apparatus;

a status concept instance generating step, of generating a status concept instance that represents the operation status of the program acquired in said status acquisition step;

an input step, of inputting different types of information by a plurality of input units;

a storing step, of storing information input in said input step with an input time thereof in a storage unit;

a sorting step, of sorting at least two types of information stored in the storage unit in an order ~~in accordance with~~ of the input time;

an input concept instance generating step, of generating an input concept instance from a sequence of the at least two types of information sorted in the input time order in said sorting step, by referring to a rule stored in a knowledge base, which stores a

rule for defining information necessary for generating the input concept instance with respect to a type of input concept; and

a concept instance unifying step, of unifying the status concept instance and the input concept instance.

24. (Cancelled)

25. (Previously Presented) An information processing method according to claim 23, wherein the input concept instance includes a type of a slot and an instance corresponding to the type of the slot.

26. (Previously Presented) An information processing method according to claim 23, further comprising:

a database storing step for storing the input information and information necessary for generating the input concept instance in a database, in one-to-one correspondence; and

a retrieving step, of retrieving information necessary for generating the input concept instance corresponding to the input information, from the database,

wherein said input concept instance generating step generates the input concept instance in accordance with the information retrieved from the database.

27. (Previously Presented) An information processing method according to claim 26, wherein the database stores a concept type, a rule necessary for the input concept instance, and a rule necessary for a surface layer word, respectively, corresponding to a surface layer character string.

28. (Previously Presented) An information processing method according to claim 24, wherein said concept instance unifying step unifies the concept instances in accordance with the rules stored in the database.

29. (Previously Presented) An information processing method according to claim 28, wherein the database stores, as a definition of a concept, a slot type of a slot which the input concept instance can have, and a rule which is required to be satisfied by the instance corresponding to the slot.

30. (Previously Presented) An information processing method according to claim 29, wherein said unifying step unifies the concept instances in accordance with the rule designated by the definition of the concept corresponding to the type of the concept of the input concept instance.

31. (Previously Presented) An information processing method according to claim 28, wherein said concept instance unifying step selects an applicable request in accordance with requirements of a plurality of rules, applies the selected request and unifies the concept instances.

32. (Previously Presented) An information processing method according to claim 23, wherein said status acquisition step acquires the operation status of the program executed in said apparatus at an input time.

33. (Previously Presented) An information processing method according to claim 23, further comprising a status storing step, of storing a past status, wherein said status concept instance generating step generates the status concept instance in accordance with the past status read in said status storing step.

34. (Original) An information processing method according to claim 23, wherein said input step can input key information.

35. (Original) An information processing method according to claim 34, wherein said input step can input character information by converting the key information.

36. (Original) An information processing method according to claim 23, wherein said input step can input speech information.

37. (Original) An information processing method according to claim 36, wherein said input step can input character information by recognizing the speech information and converting the speech information into character information.

38. (Original) An information processing method according to claim 23, wherein said input step can optically input image information.

39. (Original) An information processing method according to claim 38, wherein said input step can input character information of the image information by optically recognizing the image information.

40. (Original) An information processing method according to claim 23, wherein said input step can input hand written information.

41. (Original) An information processing method according to claim 40, wherein said input step can input the hand-written character information by recognizing the hand-written character information on line.

42. to 44. (Canceled)

45. (Currently Amended) A computer-readable storage medium storing a computer-executable information processing program for controlling a computer to perform information processing in an apparatus, said program comprising:

code for a status acquisition step, of acquiring an operation status of program executed in said apparatus;

code for a status concept instance generating step, of generating a status concept instance that represents the operation status of the program acquired by said status acquisition code;

code for an input step, of inputting different types of information;

code for a storing step, of storing information input by said input code with an input time thereof in a storage unit;

code for a sorting step, of sorting at least two types of information stored in the storage unit in an order ~~in accordance with~~ of the input time;

code for an input concept instance generating step, of generating an input concept instance from a sequence of the at least two types of information sorted in the input time order by said sorting code, by referring to a rule stored in a knowledge base, which stores a rule for defining information necessary for generating the input concept instance with respect to a type of input concept; and

code for a concept instance unifying step, of unifying the status concept instance and the input concept instance.